

Comparisons of Job Characteristics

Focus Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)

Associated Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)

Compare Knowledge

Compare Skills

Compare Abilities

Compare Detailed Work Activities

Compare Tools and Technologies

| | |
|----|--|
| << | Focus occupation element is much lower |
| < | Focus occupation element is lower |
| 0 | Focus occupation element is at a similar level |
| > | Focus occupation element is at a higher level |
| >> | Focus occupation element is at a much higher level |

Knowledge

Similarity of Focus Occupation to Associated Occupation: 79

Focus Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)

Associated Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)

| Associated Occupation's Key Knowledge Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation | |
|--|---------------------------------|--------------------------------|---------------------------|--------------------------------|---|
| Engineering and Technology | 5.7 | 18.9 | 17.6 | 0 | Current knowledge level may be sufficient |
| Design | 5.2 | 15.9 | 15.1 | 0 | Current knowledge level may be sufficient |
| Mathematics | 9.2 | 15.1 | 16.6 | 0 | Current knowledge level may be sufficient |
| Physics | 4.3 | 14.1 | 12.9 | 0 | Current knowledge level may be sufficient |
| Public Safety and Security | 6.9 | 14.0 | 7.3 | << | Extensive education and/or training may be required |
| Chemistry | 4.8 | 13.0 | 7.8 | << | Extensive education and/or training may be required |
| Law and Government | 5.9 | 12.4 | 5.5 | << | Extensive education and/or training may be required |
| Building and Construction | 4.0 | 10.3 | 4.5 | << | Extensive education and/or training may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 45

Focus Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)

Associated Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)

| Associated Occupation's Key Skills Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation | |
|---|---------------------------------|--------------------------------|---------------------------|--------------------------------|--|
| Critical Thinking | 10.8 | 14.4 | 12.6 | < | A higher skill level may be required |
| Science | 4.5 | 12.4 | 7.7 | << | Extensive development of skills in this area may be required |
| Operations Analysis | 5.0 | 11.0 | 7.2 | << | Extensive development of skills in this area may be required |

| | | | | | |
|--------------------|-----|------|-----|---|--------------------------------------|
| Systems Analysis | 6.5 | 10.6 | 9.5 | < | A higher skill level may be required |
| Systems Evaluation | 6.4 | 10.5 | 8.5 | < | A higher skill level may be required |
| Technology Design | 2.6 | 5.8 | 7.0 | > | Skill level is likely sufficient |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

| Abilities | | Similarity of Focus Occupation to Associated Occupation: 90 | | | |
|---|---------------------------------|---|---------------------------|--------------------------------|---|
| Focus Occupation: Engineering Technicians, Except Drafters, All Other (17-3029) | | | | | |
| Associated Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111) | | | | | |
| Associated Occupation's Key Abilities Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation | |
| Problem Sensitivity | 11.1 | 15.3 | 12.6 | < | Some improvement in abilities may be required |
| Inductive Reasoning | 10.2 | 14.3 | 12.0 | < | Some improvement in abilities may be required |
| Deductive Reasoning | 10.6 | 14.1 | 12.9 | 0 | Current ability level may be sufficient |
| Written Comprehension | 11.0 | 14.1 | 12.7 | < | Some improvement in abilities may be required |
| Written Expression | 9.8 | 13.4 | 11.2 | < | Some improvement in abilities may be required |
| Near Vision | 11.1 | 12.7 | 12.4 | 0 | Current ability level may be sufficient |
| Information Ordering | 9.9 | 11.9 | 12.0 | 0 | Current ability level may be sufficient |
| Fluency of Ideas | 7.6 | 11.0 | 9.8 | < | Some improvement in abilities may be required |
| Flexibility of Closure | 7.8 | 10.9 | 10.5 | 0 | Current ability level may be sufficient |
| Far Vision | 7.8 | 10.2 | 9.6 | 0 | Current ability level may be sufficient |
| Speed of Closure | 5.9 | 8.2 | 7.7 | 0 | Current ability level may be sufficient |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

There are no common work activities.

| Tools and Technologies that Both Occupations Have in Common | | Similarity of Focus Occupation to Associated Occupation: 76 |
|---|-------------|---|
| Focus Occupation: Engineering Technicians, Except Drafters, All Other (17-3029) | | |
| Associated Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111) | | |
| Tools and Technologies | Exclusivity | |
| Business function specific software | 1 | |
| Chemical evaluation instruments and supplies | 10 | |
| Computer data input devices | 2 | |
| Computers | 1 | |
| Content authoring and editing software | 1 | |
| Content management software | 6 | |

| | |
|--|----|
| Data management and query software | 1 |
| Development software | 4 |
| Diodes | 80 |
| Electrical measuring and testing equipment | 7 |
| Electrochemical measuring instruments and accessories | 9 |
| Electronic and communication measuring and testing instruments | 14 |
| Fluid mechanics equipment | 11 |
| Gas analyzers and monitors | 10 |
| Indicating and recording instruments | 2 |
| Industry specific software | 1 |
| Information exchange software | 1 |
| Laboratory enclosures and accessories | 17 |
| Laboratory furnaces and accessories | 26 |
| Laboratory heating and drying equipment | 13 |
| Laboratory ovens and accessories | 15 |
| Length and thickness and distance measuring instruments | 2 |
| Light and wave generating and measuring equipment | 4 |
| Liquid and gas flow measuring and observing instruments | 15 |
| Liquid and solid and elemental analyzers | 19 |
| Mechanical instruments | 14 |
| Metals and metallurgy and structural materials testing instruments | 15 |
| Non destructive examination equipment | 13 |
| Operating environment software | 12 |
| Power conditioning equipment | 33 |
| Pressure measuring and control instruments | 10 |
| Sound generating and measuring equipment | 19 |
| Spectroscopic equipment | 10 |
| Temperature and heat measuring instruments | 6 |
| Transducers | 23 |

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.